

CLIMATE COOLING CONTROL SYSTEMS AND METHODS  
FOR HYBRID VEHICLES

ABSTRACT

Methods and apparatus are provided for controlling the climate cooling in the passenger cabin of a hybrid motor vehicle. The apparatus includes an internal combustion engine capable of being started and temporarily stopped, an air conditioning compressor and a dedicated electric compressor motor coupled to drive the air conditioning compressor. Moreover, sensors are coupled to monitor selected parameters associated with the motor vehicle. An electronic controller is coupled to the internal combustion engine, the compressor motor and the sensors. The engine when running operates the compressor to provide cabin climate cooling. The controller responds to the selected parameters to selectively drive the compressor motor to selectively drive the compressor when the engine is temporarily stopped so that the climate cooling continues to be supplied to the cabin if certain monitored conditions are met. The controller terminates the operation of the compressor motor when the engine is restarted and the engine then again drives the compressor.